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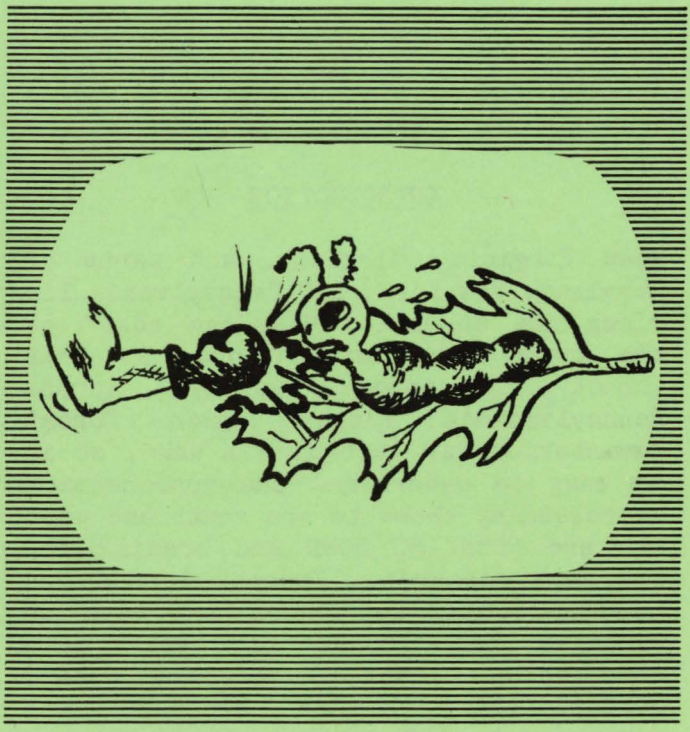
United States Department of Agriculture
Forest Service
Northeastern Area
NA-FB/M-10

Counting Down Gearing Up Fighting Back



INTRODUCTION

West Virginia, Virginia, and parts of Maryland, New York, and Pennsylvania lie along the so-called "leading edge" of the gypsy moth infestation. As this insect advanced rapidly across Pennsylvania's ridges, much forest devastation was left in its wake, so it is easy to understand the apprehension expressed by those to the south and west who are COUNTING DOWN and bracing for the same scenario. Indeed, losses can be staggering, but there are ways to minimize the impact of gypsy moth infestation and reduce stand susceptibility. This brochure was developed to inform forestland managers of the silvicultural options available to help them as they start GEARING UP and FIGHTING BACK!

SILVICULTURAL GUIDELINES

In 1983, the USDA-Forest Service, Northeastern Forest Experiment Station, formed Research Work Unit 4507 to identify silvicultural options for coping with the gypsy moth. In 1986, Kurt Gottschalk, of this unit, developed preliminary guidelines for making silvicultural prescriptions that consider the impact gypsy moth may have on individual stands. These guidelines represent the current knowledge of the effects of gypsy moth defoliation on forest stands. To lessen the impact of infestation, the guidelines recommend silvicultural prescriptions which reduce preferred food species, harvest the trees most likely to die, increase stand vigor, improve predator and parasite habitats, and regenerate stands that are near maturity or are understocked.

Other features of the silvicultural guidelines are as follows:

* They contain seven silvicultural prescriptions for reducing timber losses when defoliation is not expected within five years;

* If defoliation is imminent, they help to determine spray priorities and make stand regeneration decisions; and

* They contain prescriptions for efficient salvage of dead trees and the regeneration of stands that are either understocked due to excessive mortality or are near maturity.

Use of these guidelines requires a stand examination, analysis of stand and insect characteristics, determination of the proper prescription using decision charts, and implementation of the prescription.

DEMONSTRATION AREAS

In 1986, the West Virginia Department of Agriculture, Forestry Division, began as a special project, establishment of demonstration areas to display the application of silvicultural techniques for coping with gypsy moth. This effort has been implemented with cooperation and technical assistance from the USDA-Forest Service (Northeastern Area State and Private Forestry, and Northeastern Forest Experiment Station) in Morgantown, West Virginia. Funding for the project was obtained through the Northeastern Area's Focusing Federal Assistance program, a recent initiative that provides funds for new innovative projects. The first demonstration area developed has already begun attracting attention, and has been visited by several foresters and others interested in the management of forest resources. When additional sites are completed, they will exhibit various prescriptions from the silvicultural guidelines. Current demonstration areas are located in Berkeley, Jefferson, Hampshire, and Pendleton Counties.

SILVAH 3.01: THE TOOL

Application of the gypsy moth guidelines is being facilitated by SILVAH, an existing computer program now used to analyze forest stand conditions and suggest appropriate treatment. SILVAH (SILViculture of Allegheny Hardwoods), developed by David Marquis of the Northeastern Forest Experiment Station in Warren, Pennsylvania, involves an inventory of basic vegetation and site factors that are summarized to evaluate a stand's potential for tree growth and regeneration. A set of decision tables is employed to determine an appropriate management prescription, based on levels of site and vegetation variables in combination with landowner objectives. A new version of SILVAH, 3.01, is currently being developed that will include several enhancements. Among them will be an option which assesses the potential for defoliation and mortality, and incorporates the gypsy moth guidelines in stand prescriptions. When version 3.01 is completed, it will be promoted as a tool to facilitate adoption of the gypsy moth guidelines in states that are, or will be, impacted by the insect.

WV Gypsy Moth Project
Demonstration Areas
Developed By:

WV DEPARTMENT OF AGRICULTURE
FORESTRY DIVISION
State Capitol
Charleston, WV 25305

In cooperation with:

NORTHEASTERN AREA
STATE AND PRIVATE FORESTRY

and

NORTHEASTERN FOREST EXPERIMENT
STATION

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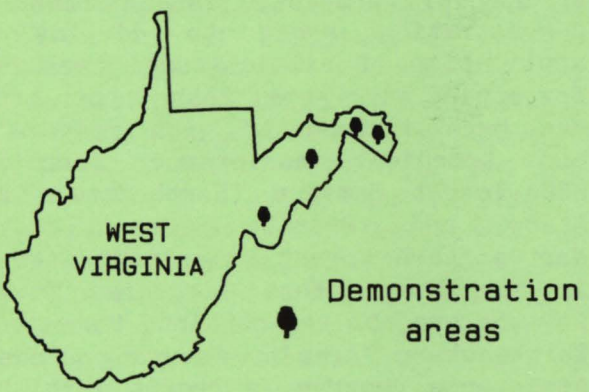
P. O. Box 4360
Morgantown, WV 26505

WV GYPSY MOTH PROJECT
DEMONSTRATION AREAS



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